

PATENT
Atty. Docket No.: INVIT1100-2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Hoeffler et al. Art Unit: Not yet assigned
Serial No.: Not yet assigned Examiner Not yet assigned
Filed: Herewith
Title: MICROARRAYS AND USES THEREFOR

Box PATENT APPLICATION
Commissioner for Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Sir:

In connection with the Divisional application filed herewith, entry of the amendments and consideration of the application in view thereof are respectfully requested.

<p>"EXPRESS MAIL" Mailing Label Number: <u>EL 476 995 515 US</u> Date of Deposit: <u>October 26, 2001</u></p> <p>I hereby certify under 37 C.F.R. § 1.10 that this correspondence is being deposited with the United States Postal Service as "Express Mail Post Office to Addressee" with sufficient postage on the date indicated above and is addressed to the BOX PATENT APPLICATION, Commissioner for Patents, Washington, D.C. 20231</p> <p><u>ALDON GRIFFIS</u> (TYPED OR PRINTED NAME OF PERSON MAILING PAPER)</p> <p><u>Aldon Griffis</u> (SIGNATURE OF PERSON MAILING PAPER OR FEE)</p>

I. AMENDMENTS

Please cancel claims 1 to 17, and 25 to 47 without prejudice.

Please amend claim 24 to read as follows:

24. (Amended) A method according to claim 18, wherein the first set of cells comprises a different detectable label than the second set of cells.

Please add the following new claims:

--51. The method of claim 18, wherein the antibodies are multispecific antibodies.

52. The method of claim 51, wherein the multispecific antibodies are bispecific antibodies.

53. The method of claim 18, wherein the antibodies are antigen-binding antibody fragments.

54. The method of claim 53, wherein the antigen-binding antibody fragments are Fv, Fab, Fab' or F(ab')₂ fragments.

55. The method of claim 18, wherein the antibodies are IgG, IgM, IgE or IgA antibodies.

56. The method of claim 18, wherein the antibodies are chimeric antibodies.

57. The method of claim 18, wherein the antibodies are humanized antibodies.

58. The method of claim 18, wherein the antibodies are single chain antibodies.

59. The method of claim 18, wherein the antibodies are diabodies.

60. The method of claim 18, wherein the solid surface comprises a plastic, a complex carbohydrate, an acrylic resin, nitrocellulose, or positively charged nylon.

61. The method of claim 18, wherein the solid surface comprises a glass slide, a silicon wafer, or a latex bead.

62. The method of claim 61, wherein the glass slides comprises aldehyde treated glass slides or nitrocellulose slides.

63. The method of claim 18, wherein the solid surface comprises polycarbonate, agarose, or polyacrylamide.

64. The method of claim 18, wherein at least one spot in the array of antibodies contains about 0.01 ng to 100 ng of antibody.

65. The method of claim 18, wherein the antibodies have an affinity greater than about 10^{-6} M.

66. The method of claim 65, wherein the antibodies have an affinity greater than about 10^{-7} M.

67. The method of claim 65, wherein the antibodies have an affinity of about 10^{-8} M to 10^{-11} M.

68. The method of claim 18, wherein the first cell lysate comprises an arterial endothelial cell lysate and the second cell lysate comprises a venous endothelial cell lysate.

69. The method of claim 18, wherein the first cell lysate or the second cell lysate or both comprises a bacteria lysate, a parasite lysate or a virus lysate.

70. The method of claim 23, wherein the normal cells are T cells.--

1003301-0301

II. REMARKS

Upon entry of the amendment, claims 18 to 24 and 48 to 70 will be pending. A marked up copy of claim 24 showing the amendment is attached hereto as Exhibit A.

The subject application is a divisional application of U.S. Serial No. 09/245,615, filed February 4, 1999. Pursuant to the Restriction Requirement mailed June 20, 2000, in connection with U.S. Serial No. 09/245,615, the claims that were set forth as Group II, claims 18 to 24 and 48 to 50, are submitted herewith for examination. Claims 1 to 17 and 25 to 50 have been cancelled herein without disclaimer, and without prejudice to Applicants' pursuing prosecution of the subject matter encompassed within one or more of the claims in an application claiming the benefit of priority of the subject application. It is noted that claim 26 as filed incorrectly depended from claim 21, but should have depended from claim 25. As such, claim 26 should have been included in Group I and, therefore, has been cancelled herein pursuant to the restriction requirement.

The application submitted herewith is substantially identical to U.S. Serial No. 09/245,615, except that the priority information and paragraph numbering have been added, various typographical errors have been corrected, and the designation "TM" has been added to various trademarked products to preserve proprietary rights. As such, no new matter has been added to the divisional application submitted herewith.

Claim 24 has been amended to delete the term "the", as there was no antecedent basis for the previously recited term "difference", and to clarify that the first and second sets of cells differ in their detectable labels. It is submitted that the amendment merely clarifies the claim language and, therefore, does not add new matter.

New claims 51 to 70 have been added. New claims 51 and 52, directed to multispecific antibodies, including bispecific, antibodies, are supported, for example, at page 4, paragraph 21. New claims 53 and 54, directed to antigen-binding antibody fragments, are supported, for example, at page 4, paragraph 21, and at pages 6 to 7, paragraph 28. New claim 55, directed to IgG, IgM, IgE or IgA antibodies, is supported, for example, at page 5, paragraph 23. New claim 56, directed to chimeric antibodies, is supported, for example, at pages 5 to 6, paragraph 25. New claim 57, directed to humanized antibodies, is supported, for example, at page 6, paragraph 26. New claim 58, directed to single chain antibodies, is supported, for example, at pages 6 to 7, paragraph 28. New claim 59, directed to diabodies, is supported, for example, at page 6, paragraph 27.

New claims 60 to 63, directed to various solid surfaces, are supported, for example, at page 10, paragraph 39, and page 25, paragraph 100. New claim 64, which specifies an amount of antibody in a spot, is supported, for example at page 9, paragraph 37. New claims 65 to 67, which specify an affinity of the antibodies, is supported, for example, at page 18, paragraph 70. New claims 68 to 70, which specify particular cells from which a lysate can be obtained, are supported, for example, at pages 18 to 19, paragraphs 71-74. As such, the new claims are supported by the specification and do not add new matter.

It is submitted that the claims are in condition for allowance, and a notice to that effect respectfully is requested. The Examiner is invited to contact Applicants' undersigned representative if there are any questions relating to this application.

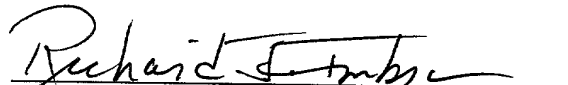
In re Application of
Hoeffler et al.
Filed: Herewith
Divisional Appl. of
U.S. Serial No. 09/245,615
Page 7

PATENT
Attorney Docket No.: INVIT1100-2

No fee other than that submitted herewith is deemed necessary in the filing of this paper.
However, if any additional fee is required, the Commissioner is authorized to charge (or credit)
Deposit Account No. 50-1355.

Respectfully submitted,

Date: October 26, 2001


Richard J. Imbra
Reg. No. 37,643
Attorney for Applicant
Telephone No.: (858) 677-1496
Facsimile No.: (858) 677-1465

USPTO Customer Number: 28213
GRAY CARY WARE & FREIDENRICH LLP
4365 Executive Drive, Suite 1600
San Diego, California 92121-2189

In re Application of
Hoeffler et al.
Filed: Herewith
Divisional Appl. of
U.S. Serial No. 09/245,615
Exhibit A – Page 1

PATENT
Attorney Docket No.: INVIT1100-2

EXHIBIT A

MARKED UP COPY OF CLAIM 24 SHOWING THE AMENDMENT

24. (Amended) A method according to claim 18, wherein the [difference between the] first [and second] set of cells [is the presence of] comprises a different detectable label than the second set of cells.

1003336-10001
1003336-10001